

WHAT IS CLAIMED IS:

1. An image formation apparatus which performs image formation by raster scanning, comprising:

masking means for masking an image signal on the  
5 periphery of a screen in a main scanning direction and  
a sub scanning direction;

input means for inputting the image signal;

judgment means for judging an input mode of the  
image signal input by said input means; and

10 control means for changing an image masking range  
of said masking means, in accordance with a judged  
result of said judgment means.

2. An apparatus according to Claim 1, wherein  
15 said judgment means judges an image input mode  
designation signal.

3. An apparatus according to Claim 1, wherein  
in a printer mode that the image signal is input  
20 from a host computer apparatus, said control means  
causes said masking means to give to a gate circuit an  
image masking signal by which an image can be formed up  
to the edge of a sheet, so as to expand the image up to  
the marginal edge of the sheet, and

25 in a mode that the image signal is input from an  
image reader, said control means causes said masking  
means to give to the gate circuit an image masking

002207" 66426960

signal by which a margin can be provided at the edge of the sheet so as to limit an image area.

4. An apparatus according to Claim 3, wherein,  
5 only when an image masking area reduction command is  
input, said control means causes said masking means to  
give to the gate circuit the image masking signal by  
which the image can be formed up to the edge of the  
sheet so as to expand the image up to the marginal edge  
10 of the sheet.

5. An image formation apparatus which performs image formation by raster scanning, comprising:

masking means for masking an image signal on the periphery of a screen in a main scanning direction and a sub scanning direction;

input means for inputting the image signal;  
judgment means for judging an input mode of the  
image signal input by said input means; and  
20 control means for inhibiting, in a mode that the  
image signal is input from an image reader, a change of  
an image masking range by said masking means, in  
accordance with a judged result of said judgment means.

25           6. An apparatus according to Claim 5, wherein, as  
said input means, said apparatus has image signal input  
means for inputting the image signal obtained by

reading an image from said image reader, and image signal generation means for generating an image signal on the basis of information received from a host computer apparatus.

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7. An apparatus according to Claim 5, wherein said image formation apparatus is a laser beam printer which performs scanning with multibeam, or an electronic equipment which has a laser beam printer mechanism.

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8. An apparatus according to Claim 5, wherein said image formation apparatus is a light emission diode array printer, or an electronic equipment which has a light emission diode array printer mechanism.

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9. An image masking control method for an image formation apparatus which performs image formation by raster scanning, said method comprising:

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a masking step of masking an image signal on the periphery of a screen in a main scanning direction and a sub scanning direction;

an input step of inputting the image signal;

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a judgment step of judging an input mode of the image signal input in said input step; and

a control step of changing an image masking range in said masking step, in accordance with a judged

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10. A method according to Claim 9, wherein said judgment step judges an image input mode designation signal.

in a mode that the image signal is input from an  
15 image reader, said control step causes said masking  
step to give to the gate circuit an image masking  
signal by which a margin can be provided at the edge of  
the sheet so as to limit an image area.

12. A method according to Claim 11, wherein, only when an image masking area reduction command is input, said control step causes said masking step to give to the gate circuit the image masking signal by which the image can be formed up to the edge of the sheet so as to expand the image up to the marginal edge of the sheet.

5       a masking step of masking an image signal on the  
periphery of a screen in a main scanning direction and  
a sub scanning direction;

a judgment step of judging an input mode of the image signal input in said input step; and

10           a control step of inhibiting, in a mode that the  
image signal is input from an image reader, a change of  
an image masking range in said masking step, in  
accordance with a judged result in said judgment step.

15           14. A method according to Claim 13, wherein, as  
said input step, said method includes an image signal  
input step of inputting the image signal obtained by  
reading an image from the image reader, and an image  
signal generation step of generating an image signal on  
20 the basis of information received from a host computer  
apparatus.

15. A recording medium which has recorded an  
image masking control program for performing masking  
control of a computer to an image formation apparatus  
performing image formation by raster scanning, said  
image masking control program causing the computer:

to input an image signal;  
to judge an input mode of the input image signal;  
to change an image masking range in accordance  
with a judged result; and

5           to mask the image signal on the periphery of a  
screen in a main scanning direction and a sub scanning  
direction within the image masking range.

10           16. A medium according to Claim 15, wherein said  
control program causes the computer to judge an image  
input mode designation signal in case of judging the  
input mode.

15           17. A medium according to Claim 15, wherein said  
control program causes the computer

to give, in a printer mode that the image signal  
is input from a host computer apparatus, to a gate  
circuit an image masking signal by which an image can  
be formed up to the edge of a sheet, so as to expand  
20           the image up to the marginal edge of the sheet, and

to give, in a mode that the image signal is input  
from an image reader, to the gate circuit an image  
masking signal by which a margin can be provided at the  
edge of the sheet so as to limit an image area.

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18. A medium according to Claim 17, wherein, only  
when an image masking area reduction command is input,

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to inhibit, in a mode that the image signal is

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21. An image formation apparatus comprising:  
plural input means for inputting image data;  
recording means for recording an image on the  
basis of an image signal input by any of said plural  
5 input means;  
masking means for masking the image to be recorded  
by said recording means; and  
control means for controlling a masking area of  
said masking means, on the basis of by which of said  
10 plural input means the image data was input.

22. An apparatus according to Claim 21, wherein  
said plural input means include at least reading means  
for reading an original image, and reception means for  
15 receiving the image data from a host computer.

23. An apparatus according to Claim 22, further  
comprising masking control means for expanding an image  
area up to the vicinity of a sheet edge by reducing the  
20 masking area of said masking means when the image is  
recorded based on the image signal from said reception  
means.

24. An apparatus according to Claim 23, further  
25 comprising means for permitting said masking control  
means to reduce the masking area when the image is  
recorded based on the image signal input from said

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reception means, and inhibiting said masking control means from reducing the masking area when the image is recorded based on the image data read by said reading means.

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25. An image formation apparatus comprising:  
reading means for reading an original image;  
reception means for receiving an image signal from  
a host computer;

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recording means for recording an image on the  
basis of the image signal input by said reading means  
or said reception means;

masking means for masking the image to be recorded  
by said recording means; and

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control means for controlling a masking area of  
said masking means, on the basis of by which of said  
reading means and said reception means the image signal  
was input.

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26. An apparatus according to Claim 25, further  
comprising:

masking control means for controlling, in order to  
expand an image area up to the vicinity of a sheet  
edge, said masking means to reduce the masking area on  
the basis of reception of a command to reduce the  
masking area of said masking means; and

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means for permitting the reduction of the masking

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27. An apparatus according to Claim 25, wherein  
5 said masking means comprises

logical calculation means for performing  
logical calculation to the image signal and the  
masking signal generated by said masking signal  
generation means.

15           a semiconductor laser,  
              means for scanning a laser beam generated by  
              said semiconductor laser, and  
              detection means for detecting the laser beam  
              scanned by said scanning means.

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30. An apparatus according to Claim 28, wherein said masking means controls masking in a main scanning

direction on the basis of a detection signal of said detection means.

31. An image masking control method comprising:  
5 an input step of inputting an image from any of plural input means for inputting image data;  
a masking step of masking the image to be recorded;

10 a masking control step of controlling a masking area in said masking step, on the basis of by which of the plural input means the image data was input; and  
a recording step of recording the image on the basis of an image signal input from any of the plural input means in said input step.

15 32. A method according to Claim 31, wherein the plural input means include at least a reading means for reading an original image, and a reception means for receiving the image data from a host computer.

20 33. A method according to Claim 32, wherein, in said masking step, when the image is recorded based on the image signal from the reception means, an image area is expanded up to the vicinity of a sheet edge by  
25 reducing the masking area in said masking step.

34. A method according to Claim 33, wherein it is

002201 6646960

permitted to reduce the masking area when the image is recorded based on the image signal input from the reception means, and it is inhibited to reduce the masking area when the image is recorded based on the image data read by the reading means.

35. An image masking control method comprising:  
a reading step of reading an original image;  
a reception step of receiving an image signal from a host computer;  
a masking step of masking the image to be recorded;  
a control step of controlling a masking area in said masking step, on the basis of by which of plural input means the image signal was input; and  
a recording step of recording an image on the basis of the image signal input in said reading step or said reception step.

36. A method according to Claim 35, further comprising a masking control step of performing, in order to expand an image area up to the vicinity of a sheet edge, masking control to reduce the masking area on the basis of reception of a command to reduce the masking area,

wherein it is permitted in said masking control step to reduce the masking area only when the image is

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recorded based on image data input in said reception step.

37. A method according to Claim 35, wherein said  
5 masking step comprises

a masking signal generation step of  
generating a masking signal, and

a logical calculation step of performing  
logical calculation to the image signal and the  
10 masking signal generated in said masking signal  
generation step.

38. A method according to Claim 35, wherein said  
recording step comprises

15 a step of scanning a laser beam generated by  
a semiconductor laser, and

a detection step of detecting the laser beam  
scanned in said scanning step.

20 39. A method according to Claim 38, wherein said  
masking step masks the laser beam in a main scanning  
direction and a sub scanning directions of the laser  
beam.

25 40. A method according to Claim 38, wherein said  
masking step controls masking in a main scanning  
direction on the basis of a detection signal in said

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detection step.

41. An image formation apparatus comprising:  
scanning means for scanning plural lasers;

5 input means for inputting image data corresponding  
to the plural lasers; and

generation means for generating a masking signal  
to control light emission of each of the plural lasers,

10 wherein the plural masking signals are generated  
by said generation means at mutually independent  
timing.

42. An apparatus according to Claim 41, further  
comprising detection means for detecting a laser beam  
15 scanned, so as to generate a sync signal.

43. An apparatus according to Claim 42, wherein  
said generation means generates each of the plural  
masking signals on the basis of each of the plural  
20 laser beams detected by said detection means.

44. An apparatus according to Claim 43, wherein  
said generation means generates each of the plural  
masking signals on the basis of the single laser beam  
25 detected by said detection means.

45. An image masking control method comprising:

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a generation step of generating a masking signal  
5 to control light emission of each of the plural lasers,  
wherein the plural masking signals are generated  
in said generation step at mutually independent timing.

47. A method according to Claim 46, wherein said generation step generates each of the plural masking signals on the basis of each of the plural laser beams detected in said detection step.

48. A method according to Claim 47, wherein said generation step generates each of the plural masking  
signals on the basis of the single laser beam detected  
in said detection step.